

CHAPTER 3

PRELIMINARY SCREENING

3-1. Introduction

This chapter describes the general procedures for the preliminary screening of existing buildings. Guidelines are presented for the preliminary screening process to classify and categorize the buildings and criteria are provided for screening of buildings from further consideration.

3-2 Preliminary screening process

Preliminary screening will be used after inventory reduction only if there is a need to further reduce the number of structures to be evaluated. A flow chart is shown in figure 3-1.

a. *Classification.* The buildings remaining after the inventory reduction will be classified as

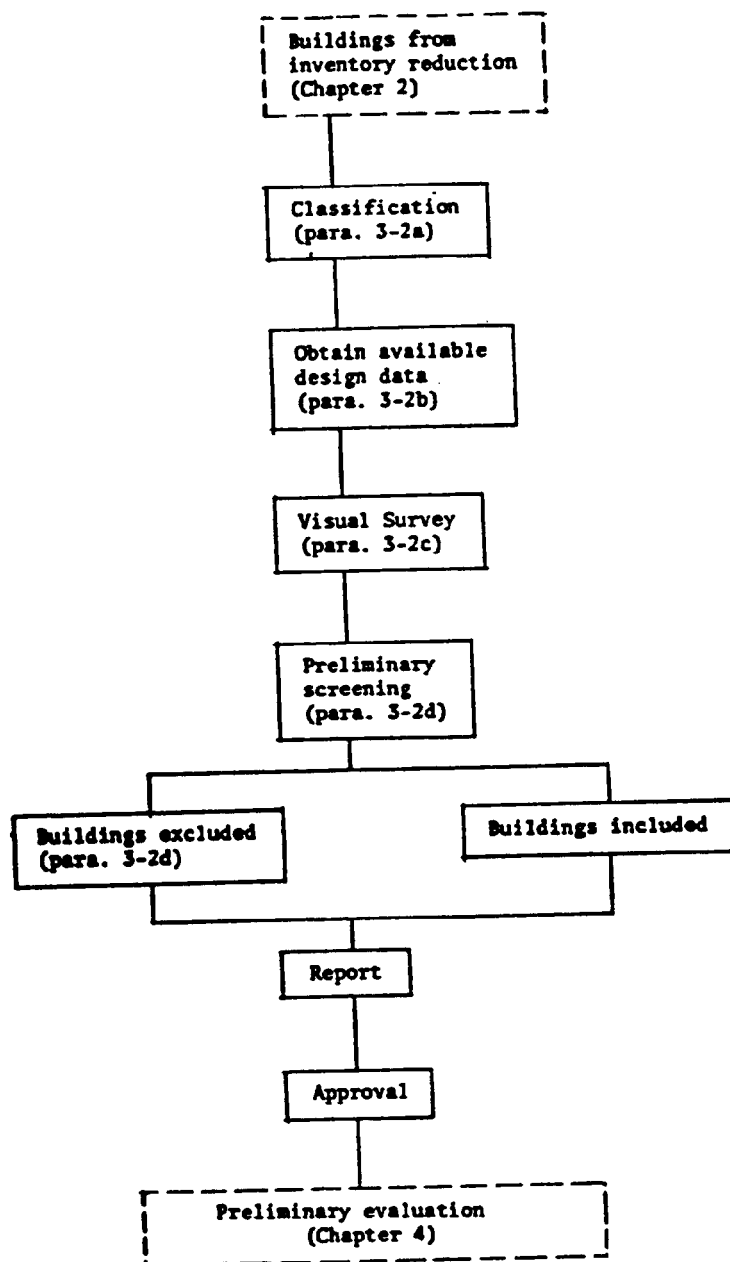


Figure 3-1. Methodology for preliminary screening

essential, high-risk, or all others in accordance with paragraph 1-5. Classification of the buildings will be provided by the using agency or will be performed by the engineer in collaboration with the using agency. The function of the building will be noted by the engineer during the site visit for the preliminary screening and any apparent discrepancy in the classification will be resolved with the using agency.

b. Available design data. The engineer will obtain available design data (e.g., drawings, design criteria, calculations, and specifications). Data pertaining to the “as-built” condition of a building are essential when available. The engineer will notify the using agency so that the assembly of selected available building data can be transferred to the engineer prior to the site visit. These data and information will be reviewed by the engineer and the pertinent information will be transferred to the screening form used in the review process. It is expedient to transfer as much data as possible to the forms. An example is shown in appendix F, figure F-1, sheet 4. When the design data are minimal or if none is available, such as may be for the older buildings, it will be noted on the screening form so that sketches with pertinent dimensions, sizes, and other notes regarding the structural systems can be made during the preliminary screening inspection. Older buildings are more likely to have undergone structural revisions and additions. Indications of such revisions and additions will be noted and confirmed. Data may require revision during the field inspection.

c. Field survey. The purpose of the inspection survey will be to obtain general data regarding each building to facilitate the preliminary screening process. These data will include building identification number, title, general function, size, general structural type (i.e., wood, concrete, steel frame, etc.), general condition, and other pertinent data. The screening forms, such as shown in appendix F, figure F-1, sheets 4 and 5, are used to establish a check list for the visual observations to aid field note taking. The inspection survey need not be detailed. The time allotted for each building will vary, depending on the size and complexity of the structure, but should be between 10 and 30 minutes. A more detailed examination will be made during the preliminary evaluation as described in chapter 4.

d. Screening. The field notes will be systematically reviewed to determine the number of buildings that will remain on the list for the preliminary

evaluation process. Justifications for removing buildings from the list include:

(1) Buildings that upon further evaluation are determined to fall within the intent of the inventory reduction criteria of chapter 2.

(2) Buildings of obviously inferior construction or whose structural condition has deteriorated to the point where upgrading is not feasible or cost effective. For this condition the engineer may recommend a course of action. As an example, a building with severe foundation problems, such as extreme ground settlement that resulted in footing or pile damage, may require a nonseismic evaluation to determine if the building should be demolished or repaired.

(3) Buildings that are essentially identical to structures remaining on the list for further evaluation. The site inspection may indicate that groups of buildings are similar or essentially identical. In this case, one building may be selected to represent all the buildings in a group. The other buildings are then placed on hold with the decision for further evaluation dependent on the results of the analysis of the representative building. However, each building must be inspected for any serious deficiency, damage and changes to warrant a separate category outside the group.

3-3. Report

A report will be prepared to summarize the results of the preliminary screening. The report will include the following items.

- a.* Description of the screening process.
- b.* Description of screening criteria.
- c.* Description of each building surveyed, including classification, contents, general structural type, condition, and available design data.
- d.* Results of screening such as which buildings require analysis and those that were eliminated from further evaluation with justification for the elimination. Identify those eliminated buildings similar to ones that are to have further evaluation. Recommendations on course of action for those buildings eliminated from further seismic evaluation.
- e.* Provide a plot plan, if information is available, to locate buildings included in inventory, identifying buildings eliminated from further evaluation and those that remain on the list for the preliminary evaluation.
- f.* Summary table that includes building classifications, structural categories, comments, and recommendations.